

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A control circuit for a semiconductor device with overheat protecting function, comprising:

a semiconductor element;
an overheat protecting means;
a chip to mount the semiconductor element and the overheat protecting means;
a control means to supply a pulse-width modulation control signal having a fixed pulse width to the semiconductor element; and

an outputting state detecting means to detect abnormality of output of the semiconductor device with overheat protecting function during an overheat protective operation of the overheat protecting means,

wherein the control means monitors detection output from the outputting state detecting means at each monitoring timing of the pulse-width modulation control signal's start time plus a fixed time period [[being]] which is shorter than the fixed pulse width,

[[and]] wherein the control means stops supplying the pulse-width modulation control signal to the semiconductor element when the detection output is generated successively predetermined times or successively during predetermined time, and

wherein the overheat protection means outputs a source voltage having a pulse width shorter than the fixed pulse width of the pulse-width modulation control signal supplied from the control means during the overheat protective operation so that the outputting state detection means can detect the abnormality of output of the semiconductor device.

Claim 2 (original): The control circuit for a semiconductor device with overheat protecting function as set forth in claim 1, wherein

the semiconductor element is of a MOSFET, and the overheat protecting means includes a temperature detecting circuit, a latch circuit, and a gate breaking circuit.

Claims 3-4 (canceled)